

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TYLER DIVISION**

U.S. ETHERNET INNOVATIONS, LLC,

Plaintiff,

V.

RICOH AMERICAS CORPORATION,

Defendant.

6:12-cv-00235-MHS-JDL
LEAD CASE

JURY TRIAL DEMANDED

U.S. ETHERNET INNOVATIONS, LLC,

Plaintiff,

V.

TRENDNET, INC.,

XEROX CORPORATION,

KONICA MINOLTA BUSINESS SOLUTIONS
U.S.A., INC., et al.,

DIGI INTERNATIONAL INC., et al.,

CIRRUS LOGIC, INC., et al.,

SAMSUNG ELECTRONICS CO., LTD., et al.,

NETGEAR, INC. and

STMICROELECTRONICS N.V., et al.,

Defendants.

Consolidated with:

6:12-cv-00236-MHS-JDL

6:12-cv-00237-MHS-JDL

6:12-cv-00329-MHS-JDL

6:12-cv-00351-MHS-JDL

6:12-cv-00366-MHS-JDL

6:12-cv-00398-MHS-JDL

6:12-cv-00399-MHS-JDL

6:12-cv-00481-MHS-JDL

**PLAINTIFF U.S. ETHERNET INNOVATIONS, LLC’S RESPONSE
TO DEFENDANTS’ MOTION FOR SUMMARY JUDGMENT
OF INVALIDITY BASED ON INDEFINITENESS OF CERTAIN
ASSERTED CLAIMS OF U.S. PATENT NOS. 5,307,459 AND 5,299,313**

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Plaintiff, U.S. Ethernet Innovations, LLC (“USEI”), hereby submits this response in opposition to Defendants’ Motion for Summary Judgment of Invalidity Based on Indefiniteness of Certain Asserted Claims of U.S. Patent Nos. 5,307,459 and 5,299,313. Dkt. 169.

I. INTRODUCTION

Defendants make the sweeping request that this Court find six independent claims of the patents-in-suit invalid due to indefiniteness.¹ Defendants attempt to meet their heavy burden of proving indefiniteness despite the fact that: (1) several of the patents-in-suit have been tried to a jury and expressly found valid, ultimately resulting in a \$70 million settlement; (2) the patents at issue in this motion have been through multiple claim construction proceedings, and no prior party argued that these terms were indefinite for the reasons asserted here; and (3) Defendants have no evidence from one of ordinary skill in the art that these terms might be indefinite, or even evidence as to who is one of ordinary skill in this case.

Instead, Defendants attempt to meet their “clear and convincing” evidentiary burden by relying almost entirely on a tentative preliminary statement made by a California court without the benefit of any extrinsic evidence. In doing so, Defendants take this statement out of context, blatantly mischaracterize it, and misstate the relevant law regarding indefiniteness.

In the context of full briefing and with the benefit of extrinsic evidence—namely, what one of ordinary skill in the art would understand these terms to mean—it is plain that each of these six terms are readily understood by an artisan. Defendants have not and cannot meet their high burden to prove any of these terms are “insolubly ambiguous”; to the contrary, the corresponding structure for the terms at issue can be readily identified—and was identified in a

¹ Defendants initially argued that over 40 terms found in the patents-in-suit were “insolubly ambiguous.” Dkt. 139-1.

prior claim construction order—pursuant to the fundamental principles of claim construction.

Thus, Defendants’ request to invalidate six independent claims of the patents-in-suit should be denied.

II. BACKGROUND

U.S. Patent Nos. 5,307,459 (the “‘459 Patent”) and 5,299,313 (the “‘313 Patent”) are part of a portfolio of foundational patents in Ethernet technology (“Ethernet Patent Portfolio”) developed by 3Com Corporation (“3Com”) during the 1990s. The Ethernet Patent Portfolio covers technology related to improving a computer’s performance, including host processor efficiency, associated with communications over an Ethernet network. Defendants assert that Claims 1, 22, 33, 44, and 50 of the ‘459 Patent are indefinite because they lack the corresponding structure for the “means for comparing ...” term and that Claim 13 of the ‘313 Patent is indefinite because it lacks the corresponding structure for the “host interface means ...” term.²

A. The Northern District Of California Has Previously Confirmed That Claim 1 Of The ‘459 Patent Is Valid.

Prior to the transfer of the Ethernet Patent Portfolio from 3Com to USEI, 3Com’s enforcement efforts led to lengthy and thorough litigation involving several patents from the Ethernet Patent Portfolio, including the ‘459 Patent, before the now-retired Hon. Vaughn R. Walker—*3Com Corp. v. Realtek Semiconductor Corp., et al.*, No. 3:03-cv-2177 VRW (N.D. Cal.) (the “*Realtek* Litigation”). During the *Realtek* Litigation, the validity of the patents,

² As an initial matter, Defendants’ motion for summary judgment must fail pursuant to the Rules of Practice for Patent Cases before the Eastern District of Texas because the invalidity theories forming the basis of their motion were not disclosed or otherwise provided in their Patent Rule 3-3 invalidity contentions served on December 3, 2012. Further, and without explanation, Defendants have not sought at any time to amend their contentions to include these invalidity theories, and there can be no plausible excuse for their lack of diligence in seeking to do so. Thus, Defendants’ motion is procedurally defective. For this reason alone, Defendants’ motion should be denied.

including specifically claim 1 of the ‘459 Patent, was tested and confirmed. Verdict Form, *Realtek* Litigation, Dkt. 690 (attached hereto as Exhibit A).³

B. Judge Ware Did Not Find Any Claim Of The ‘459 Patent Or The ‘313 Patent Invalid.

In 2009, following the transfer of the Ethernet Patent Portfolio from 3Com to USEI, USEI brought an action alleging infringement of several patents from the Ethernet Patent Portfolio, including the ‘459 Patent and the ‘313 Patent, against several infringers. *U.S. Ethernet Innovations, LLC v. Acer, Inc., et al.*, No. 4:10-cv-03724-CW (N.D. Cal.) (the “*Acer* Litigation”). In the *Acer* Litigation, the now-retired Hon. James Ware conducted two *Markman* hearings, issuing a *Markman* order after each hearing. *Acer* Litigation, Dkt. 586 and 634 (attached hereto as Exhibits B and C, respectively). Judge Ware chose not to consider any extrinsic evidence during this claim construction process. *See, e.g., Acer* Litigation, Dkt. 571 at 2 (“the Court does not intend to rely on any extrinsic evidence cited by any party in construing the disputed terms at this time”).

In his Second Claim Construction Order, Judge Ware considered the issue of corresponding structure for the “means for comparing ...” term from Claim 1 of the ‘459 Patent and the “host interface means ...” term from claim 13 of the ‘313 Patent. Significantly, Judge Ware identified structure in the specification that performed the recited functions for both claim terms. Ex. C at 10-11, 16. Nonetheless, Judge Ware declined to further construe the claim terms, noting a potential validity issue for the first time regarding “dual function” claim terms that had not been argued by the defendants or addressed in briefing by any party. Ex. C at 8-9. Citing a 13-year old, unpublished opinion from the Southern District of Indiana, Judge Ware

³ The *Realtek* Litigation resulted in a \$45.3 million jury verdict and judgment for 3Com—and later a settlement of \$70 million from a single defendant.

stated that Claim 1 of the ‘459 Patent and Claim 13 of the ‘313 patent were “*arguably* invalid” because there was not a “single” structure that could perform all of the recited functions and the parties had not addressed the issue of whether a person of ordinary skill in the art would reasonably group the individual structures that perform the recited functions as subcomponents of a larger structure.⁴ *See, e.g., id.* at 11 (emphasis added). Accordingly, the Court noted the potential issue and invited the parties to address the matter further. *Id.*

Defendants’ reliance on Judge Ware’s statements as findings of invalidity is misplaced. First, Judge Ware did not “hold” that the terms at issue are invalid. Stating that something is “arguable” is, by definition, not a “ruling,” as demonstrated conclusively by Judge Ware when he readily construed the “task” and “logic” terms he had previously stated were “arguably indefinite.” Second, Judge Ware *never* found that “there was no intrinsic evidence that led the Court to find that a person of ordinary skill in the art would group these individual functional components into a single component,” as Defendants repeatedly and improperly allege. *See, e.g.,* Dkt. 169 at 6 and 10. Rather, Judge Ware carefully stated—using identical language in both instances—“***The Court’s attention has not been drawn*** to anything in the intrinsic evidence that would lead the Court to find that a person of ordinary skill in the art would group these individual functional components into a single component.” Ex. C at 11, 16-17 (emphasis

⁴ Flagging “arguable” validity issues for further briefing appears to have been a common practice for Judge Ware. In his First Claim Construction Order in the *Acer* Litigation, Judge Ware stated that another term—“logic”—rendered a claim “arguably ambiguous,” and that a second term—“frame transmission task”—was “arguably indefinite.” Ex. B at 13, 20. Similar to the manner in which he handled the terms at issue in the instant motion, Judge Ware invited the parties to address these “arguably” ambiguous and indefinite terms further. *Id.* Following supplemental briefing and a second claim construction hearing, Judge Ware construed “frame transmission task” and several other “task” terms. Ex. C at 2-7. Judge Ware also found that the term “logic” was not ambiguous and should be construed to mean “circuitry.” *Id.* at 19. Ultimately, Judge Ware did not find a single term “indefinite” or “invalid.”

added). Of course, because this issue was being raised for the first time without the benefit of briefing or argument, USEI had not had an opportunity to draw the Court's attention to such evidence. For this very reason, the Court "invite[d] the parties to address this matter in the course of further litigation." *Id.* at 11.

Judge Ware's preliminary statements and request that the parties address the "dual function" issue further is understandable when considered in context. In the *Acer* Litigation, the defendants never argued that "dual function" claim terms, like those at issue here, require a single corresponding structure capable of performing all of the recited functions.⁵ Accordingly, Judge Ware did not have the benefit of any briefing, argument, or the presentation of any evidence with regard to whether a "dual function" claim term requires a single corresponding structure and, if so, whether one of ordinary skill in the art would reasonably group the individual structures that perform the recited functions into a larger component.⁶ Indeed, at the second claim construction hearing, Judge Ware specifically noted that he may need additional extrinsic evidence from the parties, stating as follows:

Let me see if I can do the job that you give me in claim construction without declarations. And opinion testimony is really what it is. ... If I say: "Well, gee, I can't do it without that. I need help. I need evidence. Come back to that."

Transcript of Proceedings, *Acer* Litigation, at 50 (attached in relevant part as Exhibit D). Due to Judge Ware's retirement, the parties to the *Acer* Litigation have yet to have an opportunity to

⁵ It is telling that the *Acer* defendants, including many of the most sophisticated holders of technology patents—such as Intel Corporation and Apple, Inc., each represented by well respected patent litigation counsel, never argued the position asserted by Defendants here at either claim construction hearing or in the hundreds of pages of briefing submitted to Judge Ware.

⁶ As discussed in more detail below, "dual function" claim terms do not, generally speaking, require a single structure capable of performing all of the recited functions of the claim. Even if a single structure were required, a person skilled in the art would reasonably group the individual structures that perform the recited functions into a larger component.

address this issue with briefing, argument, or the presentation of evidence, but USEI has identified such evidence here and in its claim construction briefing.

III. LEGAL PRINCIPLES

A patent is presumed valid. 35 U.S.C. § 282 (2010). When an alleged infringer seeks to invalidate a patent, that party must prove invalidity by clear and convincing evidence. *N. Am. Vaccine, Inc. v. Am. Cyanamid Co.*, 7 F.3d 1571, 1579 (Fed. Cir. 1993). The purpose of the definiteness requirement is to ensure that the claim language adequately notifies the public of the patentee's right to exclude. 35 U.S.C. § 112 ¶ 2. But it "does not compel absolute clarity." *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005) (citation omitted). "Only claims 'not amenable to construction' or 'insolubly ambiguous' are indefinite." *Id.* "Thus, the definiteness of claim terms depends on whether those terms can be given any reasonable meaning." *Id.*; see also *Exxon Research & Eng'g Co. v. United States*, 265 F.3d 1371, 1375 (Fed. Cir. 2001) ("If the meaning of the claim is discernible, even though the task may be formidable and the conclusion may be one over which reasonable persons will disagree, we have held the claim sufficiently clear to avoid invalidity on indefiniteness grounds."). Where the specification provides guidance as to the meaning of a term, the claim is not indefinite. *Paid Search Engine Tools, LLC v. Yahoo! Inc.*, No. 2:07-CV-403-DF-CE, 2010 WL 1904545, at *9-*10 (E.D. Tex. May 10, 2010). An indefiniteness challenge presents a "high" burden for an alleged infringer. See *Amgen, Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1342 (Fed. Cir. 2003) ("[t]he standard of indefiniteness is somewhat high; a claim is not indefinite merely because its scope is not ascertainable from the face of the claims"); see also *Mass Engineered Design, Inc. v. Ergotron, Inc.*, 559 F.Supp.2d 740, 750 (E.D. Tex. 2008) (describing "high burden" of proving indefiniteness).

With respect to means-plus-function limitations, claim construction involves two steps: (1) determining the function of the recited claim; and (2) identifying the corresponding structure disclosed in the written description, and equivalents thereof. *See Applied Med. Res. Corp. v. U.S. Surgical Corp.*, 448 F.3d 1324, 1332 (Fed. Cir. 2006). A structure is “corresponding” if it is clearly linked or associated with performing the recited function, as perceived by one of ordinary skill in the art. *Medtronic, Inc. v. Advanced Cardiovascular Sys.*, 248 F.3d 1303, 1311, 1313 (Fed. Cir. 2001). The disclosure of structure may also be inherent or implicit in the specification if it would have been clear to those skilled in the art what structure corresponds to the means-plus-function limitation. *Atmel Corp. v. Information Storage Devices, Inc.*, 198 F.3d 1374, 1380 (Fed. Cir. 1999). Thus, the structure of a means-plus-function limitation must be construed to cover that which is described in the specification and equivalents. *Medtronic*, 248 F.3d at 1311. A claim is indefinite ***only if*** one of skill in the art cannot determine the bounds of the claim by reading the specification and equivalents. *See Halliburton Energy Servs., Inc. v. M-I, LLC*, 514 F.3d 1244, 1249 (Fed. Cir. 2008) (emphasis added).

IV. ARGUMENT

As discussed above, Judge Ware’s Second Claim Construction Order did not hold that any term of the ‘459 Patent or the ‘313 Patent was invalid. Judge Ware merely flagged a potential issue for the parties and invited them to address the issue further, as he had done with several other terms previously. Nonetheless, Defendants’ motion for summary judgment relies almost entirely on the premise that this Court should adopt the preliminary statement of Judge Ware—made without the benefit of briefing, argument, or evidence—as a holding and invalidate six independent claims of the Patents-in-Suit. The Court should reject the premise of Defendants’ motion because full consideration of the issue reveals: (1) that the ‘459 Patent and the ‘313 Patent disclose structure corresponding to the recited functions of the claim terms at

issue; (2) that the “dual function” claim terms at issue do not require a single structure that performs all of the recited functions; and (3) even if a single structure were required, that one of ordinary skill in the art would reasonably group the individual structures that perform the recited functions into a larger component.

A. *“means for comparing the counter to the...threshold value in the alterable storage location and generating an...indication signal...responsive to a comparison of the counter and the alterable storage location” (‘459 Patent, Claims 1, 22, 34, 44, 50)*

Defendants contend that the “means for comparing ...” terms from the ‘459 Patent are means-plus-function terms that recite two functions.⁷ For example, Defendants contend that the functions for the “means for comparing ...” term from Claim 1 are as follows: (1) comparing the value generated by the counter to the threshold value in the alterable storage location; and (2) generating an indication signal to the host processor responsive to a comparison of the value generated by the counter and the value in the alterable storage location.

1. The ‘459 Patent Discloses Structure Corresponding To The Recited Functions.

As discussed in much greater detail in USEI’s Claim Construction briefing, the specification of the ‘459 Patent clearly discloses structure that performs the recited functions of the “means for comparing ... and generating” claim term; specifically, a comparator and a control block. Dkt. 158. In addition, as acknowledged by Defendants, Judge Ware found that the written description and figures of the ‘459 Patent recite corresponding structure for both the

⁷ USEI will assume for the sake of addressing Defendants’ arguments that these terms recite two functions. USEI reserves expressly the argument that Defendants have not correctly identified the function in these terms.

“comparing” and the “generating” functions of claim 1 in his Second Claim Construction Order.⁸ Ex. C at 10-11; *see also* Dkt. 169 at 5-6.

2. Defendants’ Assertion That A Single Structure Must Perform Both The “Comparing” And “Generating” Functions Lacks Legal Support.

Defendants’ request that this Court invalidate six independent claims of the ‘459 and ‘313 Patents rests almost entirely on the proposition that all alleged “dual function” claim terms must have a single corresponding structure capable of performing all of the recited functions. For support, the Defendants cite to a 13-year old, unpublished opinion from the Southern District of Indiana – *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, No. IP 96-1718-C H/G, 2000 WL 1902191 (S.D. Ind. Dec. 19, 2000) (unpublished).

There are significant and obvious flaws in Defendants’ legal analysis. The opinion relied on by Defendants was appealed to the Federal Circuit—*Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 296 F.3d 1106, 1114 (Fed. Cir. 2002). First, although the Federal Circuit upheld the lower court’s determination that the claim term at issue was invalid, albeit for reasons that do not apply here, the court rejected the proposition that every “dual function” claim term must disclose a “single” structure for performing all recited functions. In so doing, the Federal Circuit explicitly distinguished the claim term at issue in *Cardiac Pacemakers* from a typical “dual function” claim term, like the one at issue here—“The language of the limitation at issue does not refer to ‘a means for doing x and y.’” *Id.* at 1115. The Federal Circuit further noted that typical “dual function” claim terms may have “one means for performing both functions x and y, or simply one means for performing function x and one (potentially different) means for

⁸ Claims 22, 34, 44, and 50 of the ‘459 Patent were not addressed in Judge Ware’s claim construction orders.

performing function y.” *Id.* Unlike a typical “dual function” claim term, the court determined that the specific language of the claim term at issue in *Cardiac Pacemakers* “does not permit separate structures to perform the dual functions recited in the ... means.” *Id.*

The awkward claim term at issue in *Cardiac Pacemakers* was as follows:

“third monitoring means for monitoring the ECG signal produced by said detecting means for activating said charging means in the presence of abnormal cardiac rhythm in need of correction”

Cardiac Pacemakers, 296 F.3d at 1114. Because the “means” term at issue was not a generic “means,” but was instead a “**monitoring** means,” for monitoring and activating, the Federal Circuit determined that a single “monitoring” structure was required to perform both the “monitoring” and “activating” functions, noting that an alternative construction would render the patent’s description of the means as a “monitoring means” meaningless.⁹ *Id.*

In contrast, the “means for comparing ... and generating ...” term at issue here is a model of clarity—nothing about the plain language of the claim requires that a single structure perform both functions, as in *Cardiac Pacemakers*. Even assuming that the language of the claim recites two separate functions—“comparing” and “generating,” such language does not necessitate that a “single” structure perform both functions. *Id.* (noting that the Federal Circuit, in *Ishida Co. v. Taylor*, 221 F.3d 1310, 1316 (Fed. Cir. 2000), construed a claim “to cover separate structures for performing ‘stripping’ and ‘sealing’ functions in means-plus-function limitation”). And, because, unlike *Cardiac Pacemakers*, each function is clearly linked to the minimum structure necessary to perform that function, there is no risk of ambiguity. Indeed, this precise claim has

⁹ It is also important to note that the structure at issue in *Cardiac Pacemakers* included human input, further leading that court to a finding of indefiniteness. *Cardiac Pacemakers*, 296 F.3d at 1117-18. In contrast, the structure involved in the present case includes tangible hardware that is fully described in the specification and readily understood by an ordinary artisan.

already survived summary judgment and has been found valid and infringed by a jury. Ex. A. Moreover, one of ordinary skill in the art has now provided testimony that it would be readily apparent to an artisan the structure that performs each function. Dkt. 158-1 at ¶¶16-17. Nothing further is required to satisfy the *quid pro quo* of means-plus-function claiming. See *Atmel Corp.*, 198 F.3d at 1381.

With the benefit of briefing and evidence, it is now clear that the Southern District of Indiana's order in *Cardiac Pacemakers* cannot support Defendants' motion. On appeal, the Federal Circuit specifically rejected the proposition for which Defendants offer the district court order—that all “dual function” claim terms must disclose a “single” structure for performing both recited functions. To the contrary, and as recognized by the Federal Circuit on appeal, a means-plus-function term can properly disclose multiple functions that are performed by one or more structures. Furthermore, unlike in *Cardiac Pacemakers*, the claim language here does not require that a “single” structure perform all of the recited functions.

3. Even If A Single Structure Were Required, One Of Ordinary Skill In The Art Would Reasonably Group The Comparator And Control Block As Subcomponents Of Threshold Logic.

Even assuming, for the sake of argument only, that a “single” structure is required, a person of ordinary skill in the art would reasonably group the individual structures that perform the recited functions of the “means for comparing ...” term into a larger component. As described by Claim 1 itself, these elements are both part of the “threshold logic.” ‘459 Patent, Claim 1 (“... wherein the threshold logic includes, ... means for comparing ... and generating”). And, a person of ordinary skill in the art would reasonably group the “comparator” and the “control block” discussed above within the single structure of “threshold logic” recited in Claim 1, and shown in Figure 2 (element 10) and Figure 14. ‘459 Patent, Fig. 2 and 14; *see also* Dkt. 158-1 at ¶17. As Dr. Mitzenmacher stated in his declaration:

[T]he ‘459 Patent, and Claim 1 itself, clearly describe how the comparator generates an output that is provided to a control block to generate an indication signal, thus representing a logical flow of information that is encompassed with a **single structure**—“threshold logic.” See ‘459 Patent, Claim 1 (“wherein the threshold logic includes, a counter...an alterable storage location containing a threshold value...and means for comparing the counter to the threshold value in the alterable storage location and generating an indication signal [in response]”). This threshold logic is also illustrated in Figure 2 (threshold logic 10). The figures in the patent, as well as the corresponding text descriptions, also show the comparator and the control block working to fulfill the recited functions. See ‘459 Patent Fig. 14 (illustrating the output from comparator 224 leading directly into the control block 225).

Id. (emphasis added).¹⁰ Accordingly, even if the Court determines that a single structure that performs both recited functions of the “means for comparing ...” terms of Claim 1 of the ‘459 Patent is required, Defendants’ request for a finding of invalidity should be rejected.¹¹

4. A “Comparator” Is The Correct Structure For Performing The “Comparing ...” Function.

Defendants claim that USEI’s identification of a comparator is “purely functional” because the ‘459 Patent does not disclose any “circuitry or algorithms” within the comparator. This half-hearted argument misses the mark. An “algorithm” within the comparator is not

¹⁰ Defendants miss the point when they argue that it is possible for a court to find a claim term indefinite without the benefit of testimony from a person of ordinary skill in the art. Defendants have the burden to prove by clear and convincing evidence that the terms at issue are “insolubly ambiguous” to a person of ordinary skill in the art. *Datamize*, 417 F.3d at 1347. Despite this high burden, Defendants have failed to offer the Court any evidence from one of ordinary skill in the art, providing instead only attorney argument. In contrast, USEI has offered un rebutted testimony from the Area Dean of Computer Science at Harvard University that the ‘459 Patent and the ‘313 Patent disclose structure corresponding to the recited functions for the claim terms at issue and that one of ordinary skill in the art would reasonably group those structures as subcomponents of a larger single structure. Under these circumstances, USEI submits that it should not be possible for Defendants to meet their burden. *Invitrogen Corp. v. Clontech Labs. Inc.*, 429 F.3d 1052, 1068 (Fed. Cir. 2005) (“Unsubstantiated attorney argument regarding the meaning of technical evidence is no substitute for competent, substantiated expert testimony. It does not, and cannot, support [the accused infringer’s] burden on summary judgment.”).

¹¹ This analysis applies with equal weight to each of the claim terms from the ‘459 Patent at issue here.

required. The Federal Circuit has made clear that an algorithm is only needed when the corresponding structure is a “general purpose computer.” *See, e.g., Aristocrat Techs. Austl. Pty Ltd. v. Int’l Game Tech.*, 521 F.3d 1328 at 1334 (Fed. Cir. 2008). Here, a comparator falls far outside the realm of such general purpose machines.¹² To the contrary, a comparator is a special purpose device well-known in the art for performing the *single* function of comparing inputs.¹³ *See* Dkt. No. 158-1 at ¶10; *see also* MICROSOFT COMPUTER DICTIONARY, 5th ed. (2002), defining “comparator” as a “device for comparing two items to determine whether they are equal. In electronics, for example, a comparator is a circuit that compares two input voltages and indicates which is higher”) (attached hereto as Exhibit E); www.merriam-webster.com, defining “comparator” as a “device for comparing something with a similar thing or with a standard measure” (attached hereto as Exhibit F).

¹² Defendants attempt to analogize this term to the “decoder” term from the case *Microsoft Corp. v. Motorola Inc.*, 2013 WL 454268 (W.D. Wash. Feb. 7, 2013). But there is nothing analogous between that complex “decoder” and the straightforward “comparator” at issue here. To illustrate, the decoder in *Microsoft* was defined “expansively” to include “*all electronic devices* that decode digital video content comprising a stream of pictures.” Dkt. 169 at 11 (emphasis added). The “decoder” was essentially a general purpose computer—no doubt encompassing tens of thousands of circuit gates—and had to be programmed with software to perform the complex decoding functions. Here, in contrast, a single device, the comparator, must only perform the sole function it was designed to perform—comparing two values.

¹³ Means-plus-function terms are to be “construed to cover the corresponding structure ... described in the specification and equivalents thereof.” *Braun Med., Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997). The correct corresponding structure is that which is minimally necessary to carry out the claimed function. *See Golight, Inc. v. Wal-Mart Stores, Inc.*, 355 F.3d 1327, 1334-35 (Fed. Cir. 2004). Here, the specification makes clear that all that is needed to perform the recited comparison between the counter and the threshold value is a “comparator.” As discussed below and at length in USEI’s Opening Claim Construction Brief, one of ordinary skill in the art would readily understand a “comparator” as hardware used specifically for comparing two values. Indeed, one of ordinary skill in the art has presented *unrebutted* expert testimony that a comparator is all that is needed to perform the recited comparison. Specifically, Dr. Mitzenmacher opined that a comparator, as described throughout the specification, is capable of performing the requisite comparison. Nothing further is required, and Defendants cannot dispel such testimony with unsupported attorney argument.

Defendants attempt to introduce confusion where none actually exists. For example, Defendants contend that Dr. Mitzenmacher “did not assert that the ‘459 Patent itself sufficiently discloses the structure of a comparator or detail why an ordinary artisan would arrive at this understanding.” Dkt. 169 at 12. A patent need not define (and preferably omits) what is well-known in the art. *In re Buchner*, 929 F.2d 660, 661 (Fed. Cir. 1991). To that end, identification of structure must be analyzed from the standpoint of an ordinary artisan. *Exxon Research & Eng'g Co. v. U.S.*, 265 F.3d 1371, 1375 (Fed. Cir. 2001). Here, the dean of the Harvard Computer Science department has testified that he readily understands the requisite corresponding structure to be a comparator, and Defendants have offered nothing more than counsels’ feigned confusion over this term in rebuttal.¹⁴

Notably, many courts—including this Court—have recognized a “comparator” as sufficient corresponding structure. *See, e.g., Aerotel, Ltd. v. Telco Group, Inc.*, 433 Fed. Appx. 903, 916 (Fed. Cir. 2011) (affirming structure for “means for monitoring credit of the calling party during a completed call” as “a **comparator**, which makes use of information from a time and distance computing circuit”) (emphasis added); *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292 (Fed. Cir. 2011) (following lower court’s structure for “mode switching means” as “program code which performs a comparison of two numbers or a **comparator** and equivalents thereto”) (emphasis added); *Hitachi Consumer Elecs. Co., Ltd. v. Top Victory Elecs. (Taiwan) Co., Ltd.*, No. 2:10-CV-260-JRG, 2012 WL 5494087 (E.D. Tex. Nov. 13, 2012) (construing

¹⁴ Defendants also allege that the ‘459 Patent does not indicate whether the comparators are “analog or digital” or whether they receive values in “serial or parallel.” Dkt. 121 at 34. These too are nonstarters. Whether the comparator is analog or digital—or whether it receives values in serial or parallel—is irrelevant to the claimed function.

structure for “data quantity comparator means for comparing a magnitude of the first display zone with a quantity of display data...” as “a **comparator** (112)”.

In *Celltrace LLC v. AT & T Inc.*, this Court construed “means for distinguishing the formats of said first and second messages” as “a **comparator** and equivalents thereof.” *Celltrace LLC v. AT&T Inc.*, No. 6:09cv294 LED-JDL, 2011 WL 738927, *21 (E.D. Tex. Feb. 23, 2011).

There, this Court found that “one of ordinary skill in the art would recognize the diamond-shaped flow chart symbol of lozenge 9 as a **comparator** which performs a ‘Yes-No’ decision structure.”

Id. (emphasis added). As in *Celltrace*, one of ordinary skill in the art would recognize the elements illustrated in the ‘459 Patent figures using symbols such as “>” “<” and “=” as comparators that perform the counter-threshold value comparison. *See, e.g.*, ‘459 Patent, Fig. 14, element 213 (“ $a \leq b$ ”). Thus, a “comparator” adequately describes the corresponding structure because it provides sufficient information to a person of ordinary skill in the art.¹⁵ *See Budde v. Harley-Davidson, Inc.*, 250 F.3d 1369,1381-82 (Fed. Cir. 2001).

¹⁵ Defendants’ indefiniteness allegations are particularly specious where Defendants themselves have identified a comparator as corresponding structure. Dkt. No. 121 at 33. Unfortunately, Defendants identify only “comparator 224,” thus failing to account for **all** embodiments pursuant to Federal Circuit law. *See Micro Chemical, Inc. v. Great Plains Chemical Co., Inc.*, 194 F.3d 1250, 1258 (Fed. Cir. 1999). Defendants’ contention that comparator 224 is the “sole” structure that can perform the recited comparison is based on an inaccurate laymen’s reading of the specification, which ignores numerous exemplary embodiments. To be a clear, a person of ordinary skill in the art, analyzing the specification as a whole, has concluded that the ‘459 Patent discloses multiple ways in which a comparator performs the comparison between the counter and threshold value. Dkt. 158-1 at ¶¶10-12.

B. *“host interface means...for mapping data addressed to the first area into the transmit buffer, mapping data in the receive buffer into the second area, and uploading data from the receive buffer to the host” (‘313 Patent, Claim 13)*

Defendants contend that the “host interface means ...” term from the ‘313 Patent is a means-plus function term that recites three functions.¹⁶ Defendants contend that the functions for the “host interface means ...” term are as follows: (1) mapping data addressed to the first area into the transmit buffer; (2) mapping data in the receive buffer into the second area; and (3) uploading data from the receive buffer to the host.

1. The ‘313 Patent Discloses Structure Corresponding To The Recited Functions.

As discussed in much greater detail in USEI’s Claim Construction briefing, the specification of the ‘313 Patent clearly discloses structure that performs the recited functions of the “host interface means ...” claim term. In fact, Judge Ware, USEI, USEI’s expert, and Defendants are wholly in agreement on the corresponding structure for this term: XMIT AREA, XFER AREA, and upload DMA logic. Ex. C at 16; Dkt. 158 at 28-30; Dkt. 158-1 at 5-8; Dkt. 170 at 30 (“To the extent that the Court finds Claim 13 of the ’313 Patent not indefinite, however, Defendants agree with USEI’s identification of the three recited functions and the proposed corresponding structures: the XMIT AREA, the XFER AREA, and the upload DMA logic.”). Despite their agreement with that structure, however, Defendants allege this term is indefinite because those structures are not “logically contained within a single structure.” Dkt. 169 at 11.

¹⁶ USEI will assume for the sake of addressing Defendants’ arguments that this term recites three functions. USEI reserves expressly the argument that Defendants have not correctly identified the function in this term.

2. Defendants' Assertion That A Single Structure Must Perform All Of The Recited Functions Lacks Legal Support.

As discussed above, the Federal Circuit, in *Cardiac Pacemakers*, rejected the proposition asserted by Defendants here—that every “dual function” claim term must disclose a “single” structure for performing all recited functions. *Cardiac Pacemakers*, 296 F.3d at 1114-15. Instead, the court determined that the specific language of the claim term at issue in *Cardiac Pacemakers* “compel[ed] the conclusion that the same means must perform both functions.” *Id.* at 1115. For the same reasons discussed above, this Court should reject the proposition that every “dual function” claim term must disclose a “single” structure for performing all recited functions.

In addition, Defendants' attempt to analogize the language at issue in *Cardiac Pacemakers* to the “host interface means ...” term here misses the mark. Without any explanation, Defendants make the bald assertion that “claim 13 of the ‘313 Patent contains similar language to that of the specific language in the claim term at issue in *Cardiac Pacemakers*.” Dkt. 169 at 14. Yet, the tortured, confusing language from *Cardiac Pacemakers* is not at all like the clear, unambiguous language at issue here, rendering the reasoning of the Federal Circuit with regard to the specific language of that claim term inapplicable.

The claim term at issue in *Cardiac Pacemakers* provided a “monitoring means” for “monitoring” and for “activating.” *Cardiac Pacemakers*, 296 F.3d at 1114. The Federal Circuit determined that the specific language of the claim required that a single structure perform both recited functions because the patent specifically qualified the “means” with one of the functions recited in the claim (*i.e.*, a “**monitoring** means”), noting that a different result would render the patent's description of the means as a “**monitoring** means” meaningless. *Cardiac Pacemakers*, 296 F.3d at 1115.

The “means” of the claim term at issue here is not qualified with one of the functions recited in the claim—“host interface” is not “mapping” or “uploading.” Moreover, the term “host interface” (unlike “monitoring”) is non-functional language. Thus, it would be improper to read this term into the claimed function. Put simply, nothing about the claim language itself requires that a single structure perform all of the recited functions of the “host interface means ...” term from Claim 13 of the ‘313 Patent.

3. Even If A Single Structure Were Required, One Of Ordinary Skill In The Art Would Reasonably Group XMIT AREA, XFER AREA, And Upload DMA Logic As Subcomponents Of Host Interface Logic.

Even assuming, for the sake of argument only, that a “single” structure is required, a person of ordinary skill in the art would reasonably group the individual structures that perform the recited functions of the “host interface means ...” term into a larger component. Specifically, the structures that perform the recited functions here are logically related and contained within a single structure; namely, the “host interface logic.” *See* ‘313 Patent, Fig. 3; *see also* Dkt. 158-1 at ¶24.

As illustrated in Figure 3, the corresponding structures are illustrated as subcomponents contained within the host interface logic 102. ‘313 Patent, Fig. 3. And, a person of ordinary skill in the art, would reasonably group the XMIT AREA, XFER AREA, and upload DMA logic within the single structure of “host interface logic” shown in Figure 3 (element 102). ‘313 Patent, Fig. 3; *see also* Dkt. 158-1 at ¶24. Dr. Mitzenmacher explained in his declaration as follows:

[T]he ‘313 Patent describes these three required structures as logically contained within a single structure. Specifically, block 102 (entitled “host interface logic”) of Figure 3 incorporates the XMIT AREA, the XFER AREA, and the upload DMA logic: “The host interface logic includes a transmit descriptor logic [associated with XMIT AREA]...transfer descriptor logic [associated with XFER area], and upload DMA logic (generally 108) in the receive process. These modules basically manage communication of data between the independent

memory 103 and the host in response to writes by the host system to the adapter interface address block.” Col. 9:60-68; see also Col. 9:48-50 (“The adapter includes host interface logic 102 which is responsive to accesses across the host within the adapter interface address block 101”). Thus, the XMIT AREA, XFER AREA, and upload DMA logic are described by the ‘313 Patent as logically related to accomplish data communication tasks. Based on this description in the patent, it is my opinion that one of ordinary skill in the art would understand the XMIT AREA, XFER AREA, and upload DMA logic, as contained within a single structure (host interface logic) and performing the recited functions.

Dkt. 158-1 at ¶24.

Defendants do not appear to dispute this fact. Instead, Defendants point to other figures in the specification that individually illustrate or describe each subcomponent. These citations are unavailing. The patentee’s description of each structure individually at a more granular level does not change the fact that those structures are still subcomponents of the same overall structure—the host interface logic. Importantly, this conclusion is supported by *unrebutted* testimony from one of ordinary skill in the art, while Defendants’ contentions are based solely on attorney argument.

Accordingly, even if the Court determines that a single structure that performs all of the recited functions of the “host interface means ...” term of Claim 13 of the ‘313 Patent is required, Defendants’ request for a finding of invalidity should be rejected.

V. CONCLUSION

For the reasons set forth above, USEI respectfully requests that the Court deny Defendants’ Motion for Summary Judgment of Invalidity Based on Indefiniteness of Certain Asserted Claims of U.S. Patent Nos. 5,307,459 and 5,299,313.

Respectfully submitted, this 25th day of March, 2013.

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CERTIFICATE OF SERVICE

I hereby certify that on March 25, 2013, I electronically filed the foregoing with the Clerk of the Court using the CM/ECF system, which will send a Notice of Electronic Filing to all counsel of record.

/s/ Peter M. Jones

Peter M. Jones